



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/503,673 | 02/14/2000 | Meenarachagan Vishnu | FORE-54 | 7017 |

7590 08/27/2003
Ansel M Schwartz
One Sterling Plaza
201 N Craig Street Suite 304
Pittsburgh, PA 15213

EXAMINER

TRAN, THIEN D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2665 | 4 |

2665

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|--------------------------------------|----------------------------------------------|--|
| Application No. 09/503,673 | Applicant(s) VISHNU, MEENARACHAGAN | |
| Examiner Thien D Tran | Art Unit 2665 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 June 2003.
- 2a) This action is FINAL.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6, 8-24 and 26-38 is/are rejected.
- 7) Claim(s) 7-15 and 25 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) Interview Summary (PTO-413) Paper No(s) _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 16-20, 26, 33-35 are rejected under 35 U.S.C. 102(b) as being participated by Gai et al (U.S Patent No. 6,167,445 B1).

Regarding claims 1, 16, Gai discloses schedulers 518 and 522 for a server comprising:

a policy translator (first level generator) associated with groups of port connections (col.14 lines 25-30); and

a RFC (second level generator) selected (associated) with connection ports with applications dynamically (corresponding to the groups of connections), said first level generator identifying which connections in the second level generator corresponds to a group in the first level generator that are to be considered for service (col.14 lines 37-50), said second level generator identifies the connections corresponding to the group to receive service from the server, said second level generator in connection with said first level generator. Figures 3 and 5.

Regarding claims 2, 17, Gai discloses a first level filter mechanism which filters out inactive groups of connections, said first level filter mechanism connected to the first level generator and the second level generator. See col.14 lines 30-55.

Regarding claims 3, 18, Gai discloses a second level filter mechanism, which filters out inactive connections, said second level filter mechanism connected to the second level generator. See col8 lines 1-25.

Regarding claims 4, 19, Gai discloses an IRT level (zero level generator), figure 2, associated with groups corresponding with groups, said zero level generator in connection with the first level generator, said zero level generator identifying which groups in the first level generator correspond to a group in the zero level generator that are considered for service. See col.10 lines 35-55.

Regarding claims 5, 20, Gai discloses a zero level filter mechanism, which filters out inactive groups, said zero level filter mechanism connected to the zero level generator and the first level generator. See col.10 lines 15-50.

Regarding claims 26, 33-35, Gai discloses an apparatus for serving connections comprising:

a server;

a memory in which data of the connections is stored, said memory connected to the server; and

a hierarchical scheduler which schedules when the data of the connections in the memory is to receive service from the server, said scheduler connected to said server and said memory. See figure 5, col.16 lines 50-65.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 21-24, 27-32, 36-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Gai et al (U.S Patent No. 6,167,445 B1) in the view of Lahat et al (U.S Patent No. 6,417,944).

Regarding claims 6, 24, Gai discloses that the zero level generator includes a zero level generator which generates a zero level schedule, which indicates the group to be scheduled for service, the first level generator includes a first level bitmap generator which indicates the group to be scheduled for service, and the second level generator includes a second level generator which generates a second level schedule which indicates the connections to be scheduled for service. See figure 5, col.11 lines 20-50.

Regarding claims 21-23, 36, Gai discloses that the zero level filter encoder reads the zero level schedule and ANDS it with the zero level active to filter out inactive groups, the first level filter encoder reads the first level schedule and ANDS it with the first level active to filter out inactive groups, and the second level filter encoder reads the second level schedule and ANDS it with the second level active bitmap to filter out inactive groups. See col.13 lines 15-40.

Regarding claims 28, 29, 37, Gai discloses that the zero level generator, first level generator and second level generator dynamically generates bits for each group, group and connection, respectively. See col.14 lines 1-65.

Regarding claim 27, Gai discloses that the zero level generator includes a counter for each group which is decremented as a function of an intercell interval, wherein the intercell interval is the time it takes for the server to service a cell, the first level generator includes a counter for each group which is decremented as a function of the intercell interval, and the second level generator includes a counter for each connection which is decremented as a function of the intercell interval. See col.5 lines 60-67.

Regarding claims 30, 32, Gai discloses that the zero level generator sets a bit for a group whose counter decrements to zero, the first level generator sets, a bit for a group whose counter decrements to zero, and the second level generator sets a bit for a connection whose counter decrements to zero. See col.5 lines 60-67.

Regarding claims 31, 38, Gai discloses that the zero level generator, first level generator and second level generator each include a rate limiting counter associated with each counter, wherein the bit for the group, group or connection, respectively, is set whenever both the counter and the corresponding rate limiting counter decrements to zero. See col.11 lines 15-30.

Gai does not disclose that bitmap generator for generating schedule bitmap indicating the group to be scheduled for service, which would have been well known method for generating data bits in communication encoder.

Lahat, for example, discloses a generator for generating bitmap so that data can be composed by number of bits in a proper form for communication. See col.10 lines 1-20. Therefore, it would have been obvious to one having ordinary skill in the art to implement the feature of generating bitmap so that data can be composed by number of bits in a proper form for communication.

Allowable Subject Matter

5. Claims 7-15, 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (703) 308-4388. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602. Any inquiry of a general nature

Application/Control Number: 09/503,673

Page 7

Art Unit: 2665

of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thien Tran



ALPUS H. HSU
PRIMARY EXAMINER